



Chronic Obstructive Pulmonary Disease (COPD)



Changi
General Hospital

SingHealth

What is COPD?

COPD stands for “**C**hronic **O**bstructive **P**ulmonary **D**isease”.



Chronic
means it will
not go away.



Obstructive
means partly
blocked.



Pulmonary
means the
lungs.



Disease
means
sickness.

COPD is a term used to refer to these chronic respiratory diseases including 1) chronic bronchitis and 2) emphysema. Most people with COPD have a mix of both emphysema and bronchitis. COPD is not contagious.

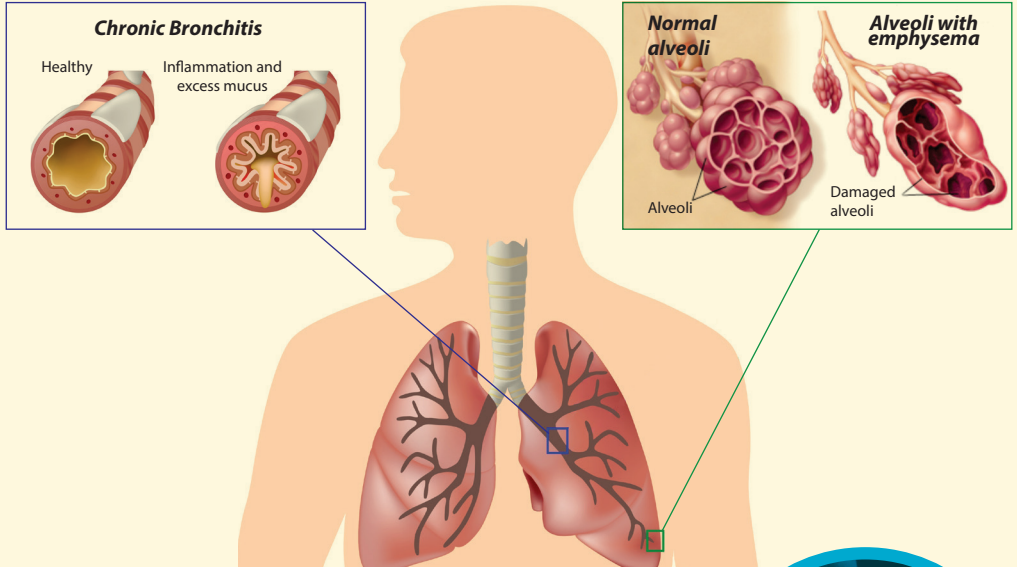
When you have COPD, the openings of the airways are smaller. Less air gets in because:

- ▶ The airway walls get thick and swollen due to persistent inflammation (also sometimes known as chronic bronchitis).
- ▶ The airways are squeezed by small muscles around them.
- ▶ The airways produce excessive mucus.

The tiny air sacs cannot empty and your lungs feel very full.

Eventually these air sacs and smaller airways (bronchioles) are damaged (resulting in what is called emphysema).

Chronic Obstructive Pulmonary Disease (COPD)



What causes COPD

- In most cases, smoking accounts for about 85 per cent of COPD cases. Smoking damages the lining of the airways in the lungs, causing it to be inflamed and destroyed. Any form of smoking can cause COPD.
- Heavy smokers are at highest risk.
- Second hand smoke and other inhaled toxins account for COPD in some non-smokers.
- Air pollution including polluted work environment may also play a part or worsen the condition of the disease.
- In others, an inherited protein deficiency is to blame.
- But in some cases, the cause is unknown.





Who gets COPD



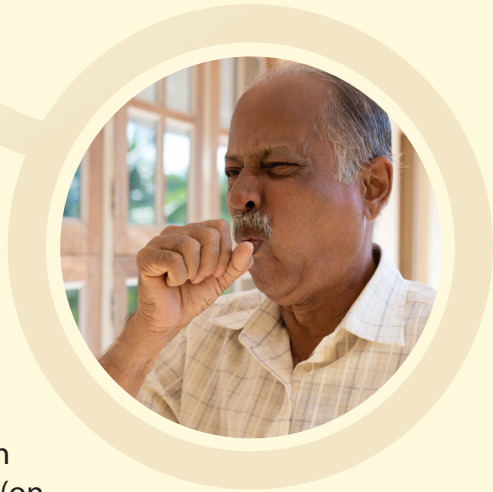
COPD happens most often in older adults and not children. Many people with COPD are at least 40 years old. However, while rare, it is possible for people younger than 40 years old to also develop COPD.

What are the symptoms of COPD?

Adults may have COPD if they have trouble breathing or a cough that will not go away.

The main symptoms of COPD are:

- ▶ Cough - usually a “wet” cough with phlegm (sputum). This is often the first of many other symptoms to develop. In early stages, this cough is intermittent (on and off). As the condition worsens, the cough becomes more persistent. It is commonly referred to as a “smoker’s cough”.



- Excessive sputum - the damaged airways produce more mucus than healthy airways. This contributes to the formation of excessive sputum, resulting in a “wet” cough.
- Wheezing - is another common symptom caused by narrowing of the airway passage.
- Breathlessness (shortness of breath) - at first this occurs only when you exert yourself (for example, when you climb the stairs). However, it tends to gradually worsen as the disease progresses over the years. In advanced COPD, breathlessness occurs even while resting and this can be very distressing.

Symptoms often worsen if you catch a cold/ flu or in the presence of air pollution, leading to an acute exacerbation (acute episode).



You should get help when you experience the following symptoms:

- Increasing breathlessness
- Unable to speak for more than one to two words in one breath



What to do:

- Stop your activity
- Sit upright and keep calm
- Administer reliever inhaler medications via a spacer and mask, take four to six breaths each puff (do not exceed 12 puffs per day)

How is COPD diagnosed?

Upon consultation, your doctor will:

- Determine if you have symptoms of COPD.
- Check if you have risk factors for developing COPD (e.g., cigarette smoking, exposure to certain toxins at work and/ or home environment).
- Schedule you for a lung function test. A lung function physiologist will ask you to breathe hard into a small tube connected to a machine called a spirometer. This test is used to confirm the diagnosis of COPD and to measure its level of severity. This process is simple and painless.

What are the stages of COPD?

The lung function test will determine the severity of your condition. Your symptoms may not necessarily be consistent with this result. Hence the importance of having these tests done.



COPD can be graded in the various stages:

- Mild
- Moderate
- Severity
- Very severe

In the mild early stages, COPD can be managed by your general practitioner (GP) or polyclinic doctor.



What are the treatments for COPD?

Various treatments are available and effective if given during the early course of the illness. These treatments cannot cure COPD, but they can help to improve your condition and slow down the damage to your lungs.

Treatment: Medications

These are your main treatment of medications. They can be either preventers or relievers. While these drugs will not cure your COPD, they can help you breathe better.



It is important that you follow the correct timing of use. You may be asked to use the spray inhaler together with a spacer and mask to improve delivery of the medication into your lungs.



Adhere to your clinic follow-up appointments. Talk about your medicines at each visit.

You will require the use of a spray inhaler. Your doctor or nurse will teach and reassess you on the correct technique of using a spray inhaler.



These consist of various types including those that help to open the airways (theophylline). During acute episodes, you may be given antibiotics, steroids (to decrease airway inflammation) and mucolytic (to reduce thick sputum).



Preventing infection is essential

You will be advised to schedule a yearly influenza vaccination (flu shot) and pneumococcal (pneumonia shot).



Visit a doctor early or go to the hospital

Early treatment with medication can prevent a severe exacerbation.



Treatment: *Oxygen*

Long term oxygen therapy

Patients with severe COPD may require home oxygen use. This has been shown to improve symptoms and prolong survival.

For fire safety precaution, do not smoke near the oxygen cylinder.



When you follow the instructions of your doctor, you will:

- Feel less breathless
- Cough less
- Get stronger and get around better
- Be in a better mood

Treatment: *Surgery*

Surgery may help alleviate some COPD symptoms. Certain COPD patients may be suitable for surgery (lung volume reduction surgery). Your doctor will determine your suitability.



Treatment: *Lifestyle*

Keep your body strong

Walk and exercise regularly. Keep a healthy diet by eating more fruits, vegetables and fish.

Get to a healthy weight. It is harder to breathe and get around if you are overweight. If you are underweight, increase your diet intake to help gain weight and stay healthy.



Get the most out of your breath - especially if your COPD is severe. While at home, make daily activities as easy as possible. Plan ahead if you want to go out or go away. If you intend to take a flight, please ask your doctor to assess your fitness for air-travel.

Keep your distance from people with respiratory infections and practise daily hand hygiene.

If you smoke, quitting is the single most important step you can take

Although the damage done to your airways cannot be reversed, quitting smoking will make a huge difference to the rate at which your disease progresses. Do not be afraid to seek help from your doctor to quit smoking. Ask to be referred to our pharmacist for smoking cessation therapy.



Keep the air clean at home

Stay away from smoke, fumes and strong smells as these can trigger an exacerbation.



Other treatments include:

Pulmonary rehabilitation

This is a supervised exercise training and education by the physiotherapist for patients with lung conditions such as COPD. This can be recommended by your doctor, nurse or physiotherapist.



Benefits:

- Increases exercise tolerance and improve your ability to perform daily tasks
- Self-manage of dyspnea and airway clearance
- Provides psychological support
- Helps to keep you healthy and stay out of the hospital



Nutritional assessment

You may be referred to our dietitian for evaluation and advice.

Psychological assessment

As many COPD patients are also suffering from anxiety and/or depression, you may be referred to our psychiatrist or psychiatric occupational therapist to help you cope with the illness better.



Cardiac diseases

COPD may be mimicked or worsened by existing cardiac diseases especially coronary artery disease. Furthermore, smoking is a common risk factor for both conditions. You may be screened for cardiovascular problems.

Sleep disorders

Conditions that occur during sleep (e.g., obstructive sleep apnoea) may worsen COPD symptoms as well as lung function. You may require evaluation and treatment for this.





Additional support

Medicosocial support

As this is a chronic disease, you may require financial and social support to see you through this period. Our medical social worker may be able to offer assistance.

Advance care planning (ACP)

It is a series of voluntary discussions that help you better understand your state of health. Your preferences will be recorded. It is your healthcare decision on your behalf, in your best interests, if you are unable to do so yourself. Participants in the ACP discussions include a trained ACP facilitator, your loved ones, healthcare providers and yourself - based on your values and beliefs.

Palliative care

In the advanced stages, palliative care issues such as hospice care may be considered. Topics like advance medical directive (AMD) will need to be discussed.



Importance of compliance to

Importance of compliance to:

- ▶ Follow-up appointments
- ▶ Take medications daily as prescribed
- ▶ Dietary advice as prescribed by the dietitian (e.g., high protein/ high carbohydrate diet or to have frequent small meals)
- ▶ Home exercises as taught by the physiotherapist
- ▶ Call COPD nurse during working hours if you are increasingly experiencing COPD symptoms (e.g., shortness of breath, cough, change in sputum colour etc.)
- ▶ If you are becoming very breathless, having poor response to reliever medications or unable to speak more than one to two words, seek immediate medical treatment by calling 995

Where do I get help



Contact our COPD nurse

Operating hours Monday to Friday: 8.30am to 5.30pm

Saturday: 8.00am to 12.00pm

Landline (65) 6850 2665

For appointments
and enquiries (65) 6850 3333

Operating hours
(call centre) Monday to Friday: 8.30am to 10.00pm
Saturday and Sunday: 8.30am to 12.30pm

For smoking cessation (65) 6850 1888 (pharmacist counselling)
Health Promotion Board (HPB) QuitLine:
1800-438-2000

Opening hours Monday to Friday: 8.30am to 7.00pm
Saturday: 8.30am to 1.00pm

Useful contact numbers:

1. Singapore Action Group for Elders (SAGE)

Seniors tele-befriending and tele-counselling

1800-555-5555

Monday to Friday : 9.00am to 7.00pm

Saturday : 9.00am to 1.00pm

2. Samaritans of Singapore (SOS) 24-hour hotline

Provide emotional support

1800-221-4444

3. ComCare Hotline

Provide financial assistance for low income individual and families

Monday to Sunday : 8.00am to 11.00pm

4. Singapore Silver Line

Provide Agency for Integrated Care (AIC) Eldercare matters

1800-650-6060

5. Non-emergency private ambulance

1777



Singapore
General Hospital



Changi
General Hospital



Sengkang
General Hospital



KK Women's and
Children's Hospital



National Cancer
Centre Singapore



National Dental
Centre Singapore



National Heart
Centre Singapore



National
Neuroscience Institute



Singapore National
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CGH Appointment Centre

For appointments and enquiries,
please call: (65) 6850 3333

Operating hours:
8.30 am to 5.30 pm (Monday to Friday)
8.30 am to 12.30 pm (Saturday)
Closed on Sunday & Public Holiday

For more information, please visit www.cgh.com.sg



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Information is valid as of November 2022 and subject to revision without prior notice.

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